



ATTACH TO #18
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USPTO Form 1449 U.S. Department of Commerce
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Attorney Docket No.

TECH CENTER 1800/2900

25436/1340

09/492,590

INFORMATION DISCLOSURE STATEMENT

Applicant(s): Carstens, Carsten-Peter

Filing Date: January 27, 2000

Group: 1636

U.S. PATENT DOCUMENTS

Examiner Initial		Patent No.	Date	Name	Class	Subclass	Filing Date (if appropriate)
AA2	1	6270988	August 7, 2001	Brinkmann, et al.	435	69.1	

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Class	Subclass	Translation	
							YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER

Donald R. Lippert

DATE CONSIDERED

3-20-02

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**Copies of references not provided at the time of this submission.



Attach To Paper #13

Page 1 of 2

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Applicant(s): Carstens, Carsten-Peter

Filing Date: January 27, 2000

Group 636

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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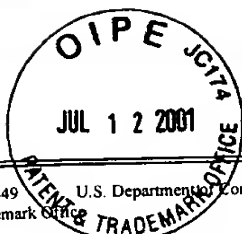
1	Kane, J.F., "Effects of rare codon clusters on high-level expression of heterologous proteins in Escherichia coli, <i>Current Opinion in Biotechnology</i> 6:494-500 (1995);	✓
2	Bonekamp, et al, "Codon-defined ribosomal pausing in Escherichia coli detected by using the pyer attenuator to probe the coupling between transcription and translation", <i>Nucleic Acid Res</i> 13:4113-23 (1985);	✓
3	Deana, A., et al. "Silent Mutations in the Escherichia coli ompa leader peptide region strongly affect transcription and translation in vivo", <i>Nucleic Acids Res</i> 26:4778-4782 (1998);	✓
4	Rosenberg, A.H., et al., "Effects of consecutive AGG condons on translation in Escherichia coli, demonstrated with a versatile codon test system" <i>J. Bacteriol</i> 175:716-22 (1993);	✓
5	Goldman, E., et al., "Consecutive low usage leucine codons block translation only when near the 5' end of a message in Escherichia Coli" <i>J. Mol. Biol.</i> 245:467-73(1995);	✓
6	Degryse, E., "Influence of the second and third codon on the expression of recombinant hirudin in E. Coli" <i>FEBS Lett</i> , 269:244-6 (1990);	✓
7	Spanjaard, R.A., et al., "Frameshift suppression at tandem AGA and AGG Condons by cloned tRNA genes: assigning a codon to argu tRNA and T4 tRNA (Arg), <i>Nucleic Acids Res.</i> 18:5031-6 (1990);	✓
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9	Calderone, T.L., et al., "High-level misincorporation of lysine for arginine at AGA codons in a fusion protein expressed in Escherichia coli, <i>J. Mol. Biol</i> 262: 407-12 (1996);	✓
10	Forman, M.D., et al "High level, context dependent misincorporation of lysine for arginine in Saccharomyces cerevisiaw a 1 homodomain expressed in Escherichia coli", <i>Protein Sci</i> 7:500-3 (1998);	✓
11	Brinkman, et al. "High level expression of recombinant genes in Escherichia Coli is dependent on the availability of the dna Y gene product", <i>Gene</i> 85:109-14 (1989);	✓

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12	Hua, et al, "Enhancement of Expression of human granulocyte-macrophage colony stimulating factor by argu gene product in escherichia coli" <i>Biochem Mol. Biol. Int.</i> 32:537-43 (1994);
13	Chen, et al., "Role of the AGA/AGG codons, the rarest codons in global gene expression in Escherichia coli" <i>Genes Dev</i> 8:2641-52 (1994);
14	Garcia, et al., "The argU Gene product enhances expression of the recombinant human interferon in Escheria coli" <i>Ann N.Y. Acad Sci</i> 782:79-86;
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17	Sharp, et al., "Codon usage in regulatory genes in Escherichia coli does not reflect selevtion for rare codons" <i>Nucleic Acids Res.</i> 14:7737-7749 (1986); and
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